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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,056	10/28/2003	David B. Lektion	RSW920030183US1	5961

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EXAMINER
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ZHE, MENG YAO

ART UNIT	PAPER NUMBER
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2195

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06/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/695,056

Applicant(s)

LECTION ET AL.

Examiner

MengYao Zhe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 to 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 to 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

This is the initial Office Action based on the 10/695056 application filed on 10/28/2003.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 3 are rejected under 35 U.S.C. 101 because the claims are rejected as falling under the judicial exception of an abstract idea which lacks a useful, concrete, and tangible result. A claimed series of steps or acts that do not result in a useful, concrete, and tangible result are not statutory within the meaning of 35 USC 101. In the instant case, the claims recite, “\_[determining]\_.” However, no useful, concrete, and tangible result is claimed. For example, “writing said data,” “updating said data,” “sending said data” being claimed at the end of the claim may comprise a useful, concrete, and tangible result. Absent such a result, however, the claims are not statutory.

Claims 16 to 20 are rejected under 35 U.S.C. 101 because the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are

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they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 claims for a lag time of a first process to a second process. It is unclear whether if the lag time is the time that process one has been waiting for execution or if the lag time is the time difference between the execution time of the first process and that of the second process.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 to 18, 21 to 23, are rejected under 35 U.S.C. 102(b) as being anticipated by Eilam et al., Pub No. US 2004/0111509 (hereafter Eilam).

**As per claim 1, Eilam teaches a method of managing processes, the method comprising:**

**determining a set of available resources;** (*Paragraphs 20, 33, 34: Resource Manager keeps track of workload of all resources, which are the servers in this case.*)

**determining a set of lagging processes;** (*Paragraph 27: "the penalty can be expressed...as a fixed amount for a needed server...which is not available for a unit time"; Paragraph 50: "in every iteration, the best allocation is determined for*

*the next time slot...": These paragraphs implies that the resource manager knows at each time slot, the requests, which corresponds to the processes, that are suffering and accumulating penalties based on the penalty specified by each request.)*

**determining an anticipated benefit for the set of available resources for each process in the set of lagging processes (Paragraphs 26, and 48 to 67)**

**As per claim 2, Eilam teaches the method of claim 1, further comprising allocating the set of available resources to at least one of the set of lagging processes based on the anticipated benefit. (Paragraphs 87 to 95)**

**As per claim 3, Eilam teaches the method of claim 2, wherein the at least one of the set of lagging processes comprises a most responsive process for the set of available resources (Paragraph 69: the matrix  $U$  contains the optimal revenue allocation for all processes, which corresponds to most responsive.)**

**As per claim 4, Eilam teaches the method of claim 1, further comprising executing each process using its allocated resources. (Paragraphs 20, 21 and 87)**

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**As per claim 5, Eilam teaches the method of claim 1, further comprising reallocating a resource allocated to an accelerated process to one of the set of lagging processes. (Paragraph 87: the server is moved to serve a customer with higher priority based on the generated plan, which takes into account the fact that if a customer has not been served in time, penalty increases, thus making it a higher priority.)**

**As per claim 6, Eilam teaches the method of claim 1, further comprising allocating the set of available resources to an accelerated process, wherein the accelerated process comprises a most responsive process for the set of available resources. (Paragraph 69)**

**As per claim 7, 16, 21, Eilam teaches a method of managing processes, the method comprising:**

**determining a set of available resources; (Paragraphs 20, 33, 34)**

**determining an anticipated benefit for the set of available resources for each process based on learned benefit knowledge; (Paragraphs 26, and 48 to 67: (Paragraph 85: All actual allocation decision is based on the sum of  $X(t)$  and  $X(t-1)$ , which are the actual current and past LTF residuals. Past LTF corresponds to learned benefit knowledge. )**

**allocating at least some of the set of available resources to a process  
based on the anticipated benefits. (Paragraph 87)**

**As per claim 8, Eilam teaches the method of claim 7, wherein the process  
comprises a most responsive process for the set of available resources.**

*(Paragraph 69)*

**As per claim 9, Eilam teaches the method of claim 7, further comprising  
determining an anticipated time savings for each process based on the  
anticipated benefit and a desired execution period. (Since at each time slot, a  
revenue is calculated, telling the resource manager what the penalty would be if a  
customer is not serviced at that time slot, time saving is inherently tracked by the  
invention disclosed by Eilam. Penalty contains the information regards to the desired  
execution period.)**

**As per claim 10, Eilam teaches the method of claim 7, wherein a plurality of the  
processes comprise sub-processes of a first process, further comprising  
determining a performance benefit for the first process. (Paragraph 36: each user  
may make multiple requests, each request correspond to a sub-process.)**

**As per claim 11, Eilam teaches the method of claim 7, further comprising  
determining a set of lagging processes. (Paragraphs 25 to 27, 50, 51 to 67, 87)**

**As per claim 12, The method of claim 11, wherein the allocating step includes  
allocating at least some of the set of available resources to at least one of the set**



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**of lagging processes based on the anticipated benefits for the set of lagging processes. (Paragraph 87)**

**As per claim 13, Eilam teaches the method of claim 7, further comprising: allocating a set of required resources to each process; and executing each process using the allocated resources. (Paragraphs 20, 21 and 87)**

**As per claim 14, Eilam teaches the method of claim 13, further comprising providing an execution result and a lag time of a first process to a second process, wherein the second process requires the first process to complete execution before starting to execute. (Paragraph 27: Penalty contains the lag time of each process since it can contain the price for an amount of time that it is not available for. The amount of time that the server has not been available to serve that particular process corresponds to the lag time. Paragraph 87: priority is given to the processes, those with higher priority will get served first.)**

**As per claim 15, Eilam teaches the method of claim 7, wherein the allocating step is further based on a minimum amount of the set of available resources that is required for the anticipated benefit. (Paragraph 25: guarantee level corresponds to minimum amount.)**

**As per claims 17, 22, Eilam teaches comprising a status system for determining a status of each process, wherein the allocation system further allocates resources based on the status of each process. (Paragraph 87: the priority corresponds to the status.)**

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**As per claim 18, 23, Eilam teaches further comprising an execution system for executing each process using the allocated resources. (Fig 2 corresponds to the execution system)**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eilam et al., Pub No. US 2004/0111509 (hereafter Eilam) in view of Deosaran et al, Pub No. US 2002/0135611 (hereafter Deosaran).

**Eilam teaches claim 16.**

**Eilam does not explicitly teach**

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**Claim 19: wherein the anticipated benefit is based on a set of entries stored in a benefit knowledge database.**

**Claim 20: wherein each entry in the set of entries includes a relative performance change and a corresponding set of additional resources.**

**However Deosaran teaches**

**Claim 19: wherein the anticipated benefit is based on a set of entries stored in a benefit knowledge database *for the purpose of tracking improvements (Fig 5, unit 510; Paragraphs 81 and 82)***

**Claim 20: wherein each entry in the set of entries includes a relative performance change and a corresponding set of additional resources *for the purpose of tracking improvements (Fig 5, unit 510; Paragraphs 81 and 82)***

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the invention of Eilam with

**Claim 19: wherein the anticipated benefit is based on a set of entries stored in a benefit knowledge database.**

**Claim 20: wherein each entry in the set of entries includes a relative performance change and a corresponding set of additional resources.**

as taught in Rodriguez, because it tracks improvements (*Fig 5, unit 510; Paragraphs 81 and 82*).

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MengYao Zhe whose telephone number is 571-272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.Z.



JOSEPH DEL SOLE  
SUPERVISORY PATENT EXAMINER

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